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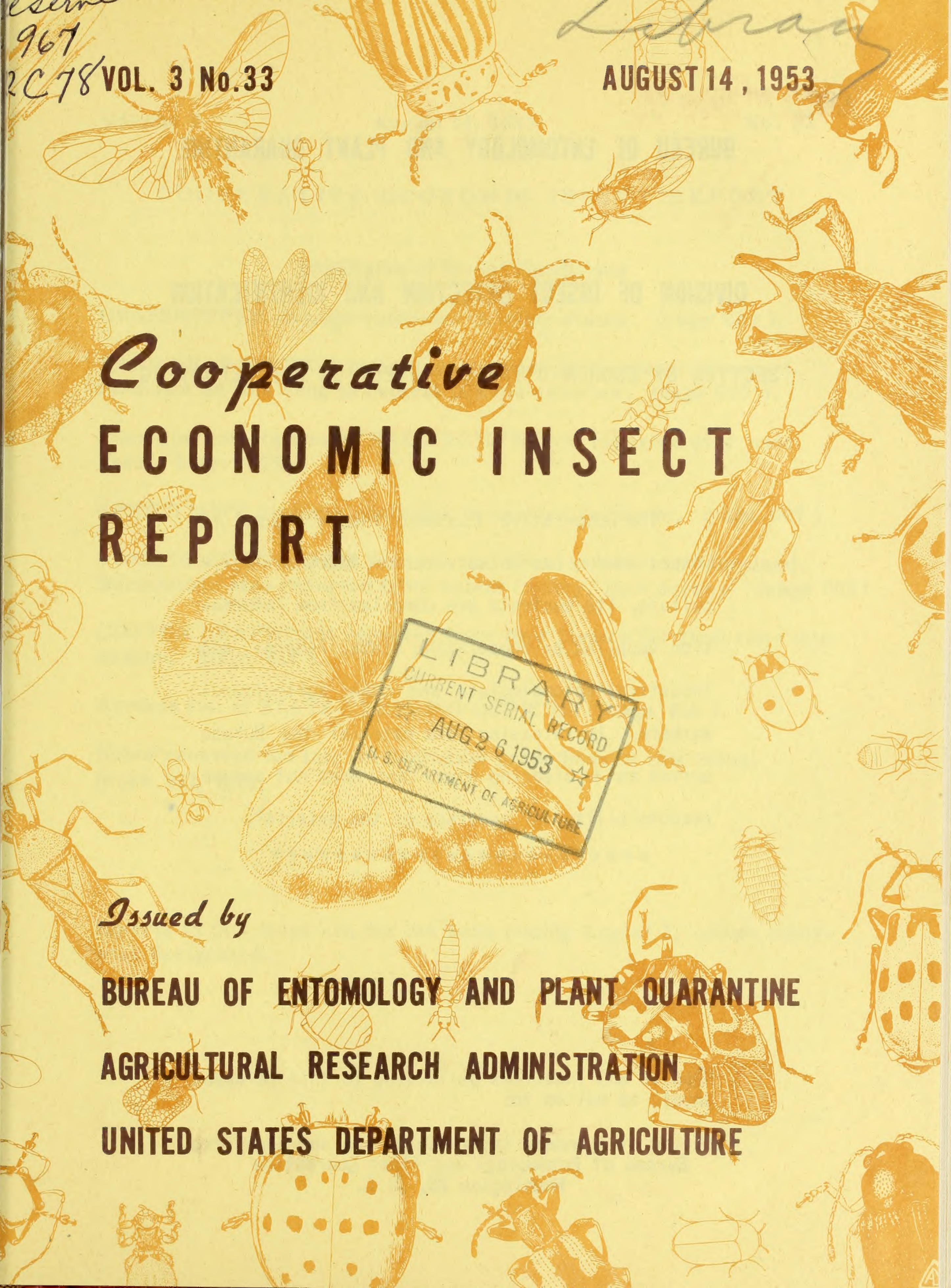

Cooperative
ECONOMIC INSECT REPORT

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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

DIVISION OF INSECT DETECTION AND IDENTIFICATION

SECTION OF ECONOMIC INSECT DETECTION AND REPORTING

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Bureau serves as a clearing house and does not assume responsibility for accuracy of the material.

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Section of Economic Insect Detection and Reporting
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Volume 3 August 14, 1953 No. 33

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

GRASSHOPPER damage continues in many states. (page 603).

BEAN LEAF BEETLE damaging soybeans in southeast Missouri. Abundant on this crop in central Illinois counties. (page 605).

Damaging infestations of FALL ARMYWORM reported over wide area. (page 605).

SPIDER MITE problem continues in eastern orchards. (page 607).

TOMATO RUSSET MITE found in additional counties of Maryland. Infestations also reported from Salem County, New Jersey. (page 609).

COTTON LEAFWORM reported from New Mexico for first time this season. (page 613).

Revised list of STATE CLEARING OFFICES. (page 619).

Notes received too late for inclusion in the body of this issue. (page 617, 618).

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Reports in this issue are for the week ending August 7, unless otherwise designated.

WEATHER FOR THE WEEK ENDING August 11, 1953

Unseasonably cool, showery weather in most sections east of the Rocky Mountains eased the drought situation centered in Missouri and the Virginia-Carolina areas, benefited crops in most other sections, and generally improved soil moisture conditions. Frequent rains delayed haying operations and grain harvesting in the upper Mississippi Valley and Great Lakes region, and heavy to excessive rains in northeastern Minnesota on the 5th and 6th caused an overflow of the Mississippi River at Aitkin where 25,000 acres are under water and 18 families are evacuated.

In Virginia and the Carolinas showers that were light at the beginning of the period and mostly moderate to locally heavy during the last 3 or 4 days generally totaled from 1 to over 6 inches along the coast and in scattered mountain localities, but varied from a few hundredths up to an inch elsewhere. While these rains were beneficial many localities, particularly the central portions of these States, continue critically dry. In Missouri and most of the south-central portion of the Country weekly totals were mostly only light to moderate and general soaking rains are still needed. In the Middle Atlantic States and New England where rainfall ranged from 1 to over 4 inches soil moisture is now generally adequate.

Hot, dry weather prevailed from Oklahoma to eastern New Mexico. The weather was particularly hot in Texas where average maximum temperatures for the State reached 100° on the last 5 days of the period and some localities in the central portion of the State recorded the highest temperatures since 1936 on the 9th. In contrast, frost was reported in some northern sections, namely, in the Black Hills of South Dakota on the 7th and in low places in northern Maine, Vermont and New Hampshire on the 2d and 3d. In extreme north-central interior sections temperatures dropped to the low 40's and high 30's on the 5th, with a low of 37° reported from Michigan. In the Rocky Mountain and Pacific States near normal temperatures prevailed, except in eastern New Mexico where the entire week was unseasonably hot. Beneficial rains occurred in most of Wyoming, Colorado, in parts of Utah, and in sections near the Canadian Border, but more rain is generally needed elsewhere in the far West. (Summary Supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - DELAWARE - Damaging soybeans. (Late News). MARYLAND - Continue destructive in Montgomery, Frederick and Washington Counties. (Bissell). PENNSYLVANIA - Unusually abundant. (Pepper). MICHIGAN - Building up in northern counties. *Melanoplus mexicanus* and *M. femur-rubrum* dominant species. (Hutson). ILLINOIS - Reported abundant in northern half of State. (Decker). WISCONSIN - *Melanoplus femur-rubrum* continues to become more abundant. Some damage to corn, soybeans and tobacco in southern area. Damage by other species continues on ripening grain in northern counties. (Chambers). MISSOURI - Damage by four main crop species continues heavy. (Kyd, Thomas). IOWA - Sprays being applied in many areas for control in pastures, hay fields, and margins of corn and soybean fields. (Raun). SOUTH DAKOTA - Economic infestations limited primarily to Lyman, Hughes, Sully and Potter Counties. Little damage. Hatch of four main species of *Melanoplus* complete. (Lofgren, August 3). NEW MEXICO - Continue most pressing insect problem in State. Control work being carried out in Colfax, Harding and San Miguel Counties. Situation causing concern in areas of Chaves and Lincoln Counties. (Dobson). UTAH - Damaging infestation in some areas of Box Elder, Salt Lake and Cache Counties. (Knowlton). CALIFORNIA - Only slight damage to rangeland and alfalfa in Kern County. Medium infestations in pastures in Placer County. *Oedaleonotus enigma* has been of prime significance in outbreak areas. Kern County's 120,000 acre control program was based on potential threat of this species. This species also found in economic proportions in San Diego, Riverside, Los Angeles, Fresno, San Benito, Merced, Butte, Tehama, Shasta and Lassen Counties. *Melanoplus devastator* continued dominant along Sierra and northern foothill rangelands; however, population about same as 1952. *Camnula pellucida* continued at relatively low levels on statewide scale, although heavy local outbreaks in meadows in San Diego, Monterey, Siskiyou, and Modoc Counties. Crop species continued to cause concern in several areas. (Coop. Insect Pest Rept., July).

MORMON CRICKET (*Anabrus simplex*) - CALIFORNIA - Outbreak in Sierra and Lassen Counties on 8,000 acres reduced to stragglers following baiting. (Coop. Ins. Pest Rept., July).

A CRICKET (*Clinopleura melanopleura*) - CALIFORNIA - Considerable numbers in localized areas along eastside from Fresno to Butte Counties. (Coop. Ins. Pest Rept., July).

EUROPEAN CORN BORER (Pyrausta nubilalis) - ILLINOIS - Second generation progressing normally. Egg laying for third generation underway in extreme south. No serious damage anticipated in southern half of State and treatment appears unnecessary. Damage not expected serious in central area though populations may increase over last year. In northern counties conditions continue serious. Pupation and emergence have been very heavy. It seems probable that many fields in northern third of State may have high second-generation infestations. (Decker). MISSOURI - Moths still numerous around lights in extreme southeast. Larvae from third instar to pupal stage. (Kyd, Thomas). IOWA - Cooler weather delaying peak egg laying, but egg mass totals continue to increase indicating a high second-brood population with considerable damage. Survey of 88 fields in Boone County, central area, shows 7 percent have 100 or more masses per 100 stalks. (Raun). NORTH DAKOTA - A survey of northern Red River Valley shows only a trace of borer. (Kaatz). NEBRASKA - Ten to 25 egg masses per 100 plants in southeastern and central areas. Pupation near completion in southeastern section. (Ball).

CORN EARWORM (Heliothis armigera) - MASSACHUSETTS - Moths active. (Crop Pest Cont. Mess.). VIRGINIA - Sweet corn heavily infested in Norfolk area. (Brubaker, Greenwood, Hofmaster). FLORIDA - Infesting sorghum in Washington County. (Guthrie). ILLINOIS - Ten to 30 percent of ears in silking fields in central canning belt infested with eggs and young larvae. Populations likely to increase rapidly. (Decker). MISSOURI - Whorls of late corn heavily damaged. Mainly between broods in southern area. (Kyd, Thomas). OKLAHOMA - Nearly 100 percent infestation in all sweet and field corn. (Walton). NORTH DAKOTA - More abundant in some sweet corn fields than usual. This insect has increased during past three years in southern Red River Valley. (Post). UTAH - Indications are for far below average infestations. (Knowlton). IDAHO - Very scarce on sweet corn in south central area. (Douglass). Up to 20 percent of ears infested in southwestern area. (Walz, August 1).

CHINCH BUG (Blissus leucopterus) - ILLINOIS - Nymphs and adults causing serious damage in many mid-June plantings of sweet corn in central area. (Decker).

CORN ROOTWORMS (Diabrotica spp.) - MISSOURI - Southern corn rootworm adults numerous on corn, cotton and soybeans in southern counties. (Kyd, Thomas). NEBRASKA - Moderate to heavy populations of Diabrotica virgifera throughout most of corn producing area of State. (Roselle). SOUTH DAKOTA - Some injury to corn in eastern counties. (Lofgren, August 3).

CORN LEAF APHID (Rhopalosiphum maidis) - MISSOURI - Heavy feeding continues on sorghums. (Kyd, Thomas). NEBRASKA - Heavy infestation on field corn in areas of eastern and northern Nebraska. (Roselle). TEXAS - Light infestation on sorghums at Amarillo and in the Panhandle. (Daniels).

CORN SAP BEETLES (Carpophilus spp.) - NEW JERSEY - Serious pest in all fields of sweet corn being harvested. An increase in incidence of this insect as a primary invader is noted. Not unusual to find 35 to 50 percent of husk extensions with eggs or larvae. (Starnes). MARYLAND - Damaging sweet corn in Kent County. (Bissell).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - ALABAMA - Appearing on soybeans in Baldwin County. (Rohwer). SOUTH CAROLINA - Infestation increasing, but still light in Charleston area. (Cuthbert).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MISSOURI - Heavy damage to soybeans in southern Pemiscot and Dunklin Counties. Considerable feeding on pods of early varieties. Up to 40 percent foliage damage in several late fields. Eight to 10 beetles per linear foot of row in heavily infested fields. (Kyd, Thomas). ILLINOIS - Appearing in numbers on soybeans in central counties. (Decker).

A WHEAT STEM MAGGOT (Meromyza sp.) - UTAH - Half of 15 acre field of wheat destroyed in Emery County. (Knowlton, August 1). OREGON - Infestations not serious in central area on spring wheat, but more abundnat than 1952. (Every).

WHEAT HEAD ARMYWORM (Protoleucania albilinea) - IDAHO - Damaging wheat in Teton County. (Giesler, August 1).

FALL ARMYWORM (Laphygma frugiperda) - MARYLAND - Destroying late corn in Allegany County. (Bissell). GEORGIA - Third and fourth instars damaging pasture grasses in Thomas County. (Morgan). Millet on several farms in Laurens and Jefferson Counties being defoliated. (Jordan). LOUISIANA - New generation in Baton Rouge area. Damaging infestations reported on pasture grasses, sudan grass and cotton from all areas. (Smith). MISSOURI - Light scattered infestation of second to fourth instars in southern area. Two to three percent damage some fields. (Kyd, Thomas). OKLAHOMA - Large numbers in Bryan, Johnson, Carter, Cole and Pittsburg Counties damaging lawns, peanuts, grain sorghum and gardens. (Stiles). IOWA - A few taken in old oat stubble and alfalfa fields. (Raun). TEXAS - Damaging pastures in southwest Navarro County. (Prater). Also damaging sorghum in areas of Hunt, Rockwall, Kaufman, Van Zandt and Delta Counties. (Garner). MISSISSIPPI - Still causing damage to late corn and grasses. (Bennett). ARIZONA - Injuring about 60 percent of newly-formed ears in field corn in Santa Cruz County. Attacking whorls in late-planted fields. (Blackledge). ARK. - Infesting several crops. (Barnes).

GREEN JUNE BEETLE (Cotinis nitida) - FLORIDA - Adults very abundant in Bermuda grass pastures in Gadsden County. (Guthrie).

ALFALFA WEEVIL (Hypera postica) - CALIFORNIA - Heavy infestations in untreated alfalfa in Modoc County. Many fields showed economic damage for first time. (Coop. Ins. Pest Rept., July). SOUTH DAKOTA - Specimen collected recently in Jackson County, which is extension of range of insect in State. (Severin).

CLOVER LEAF WEEVIL (Hypera punctata) - CALIFORNIA - Severe damage in parts of Siskiyou County during July. (Coop. Ins. Pest Rept.).

LYGUS BUGS (Lygus spp.) - CALIF. - Moderate build-up in Kern County alfalfa. Medium damage to alfalfa seed crop in Imperial County. (Coop. Ins. Pest Rept.,)

SPIDER MITES - OREGON - Building up on red clover in Malheur County. Probably Tetranychus atlanticus involved. (Every).

A NITIDULID (Meligethes seminulum) - OREGON - Damage to red clover in Willamette Valley more severe than in past years. Average of 17 per head in red clover compared with past populations of 10-12 per head. (Dickason).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - MASSACHUSETTS - Second-brood very active. (Crop Pest Cont. Mess.). NEW JERSEY - Second-brood injury continues in central and southern counties. (Farley). MARYLAND - Active on lower Eastern Shore. (Bissell). DELAWARE - Partial third brood expected. (Late News). INDIANA - Indications that late attack will be surprisingly severe in many orchards in Orleans area. (Marshall). Third brood activity will probably extend farther north than usual. (Hamilton). ILLINOIS - Many third-brood entrances in apples in Jackson, Union and Johnson Counties. (Chandler). Third brood progressing rapidly in western KENTUCKY and southern areas of ILLINOIS and INDIANA. Nearing peak hatch in these areas. (Spray Serv. Rept.). MICHIGAN - Moths began emerging July 21 in most northern cages located at Alden, Old Mission and Acme. (Hutson). OREGON - Very light year in Willamette Valley. (Jones).

SPIDER MITES - MASSACHUSETTS - Two-spotted spider mite (Tetranychus bimaculatus) increasing rapidly in peach and apple orchards. European red mite (Metatetranychus ulmi) still needs attention. (Crop Pest Contr. Mess.). NEW YORK - Still causing concern in Dutchess and Oswego Counties. (Weekly News Lett.). NEW JERSEY - Control continues a problem in some peach and apple orchards. (Farley). PENNSYLVANIA - Severe injury in central area orchards where no miticide used. (Udine). MARYLAND - Tetranychus schoenei injuring apples in Montgomery County. (Bissell). INDIANA - Reproducing rapidly in Orleans area and threaten to russet foliage not previously heavily attacked. (Marshall). Rapid development continues in Vincennes area. (Hamilton).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - NEW JERSEY - Second-brood activity at peak in central and southern areas. Minor injury so far. (Farley). NEW YORK - Active in some counties. (Weekly News Lett.).

PLUM CURCULIO (Conotrachelus nenuphar) - ILLINOIS - Second-brood peak passed in southern counties. (Chandler). GEORGIA - Infestation in peaches in Fort Valley area was considerably less than average year; therefore population of hibernating adults expected less than usual. (Snapp, July 20).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - WASHINGTON - Third brood appearing in much larger numbers than for several years. (Yothers). GEORGIA - Only 0.3 percent of 6,921 ripe Sullivan's (early) Elberta peaches found infested. None of 3,587 early Hiley peaches examined found infested. These data are representative of the lighter than average infestation in central Georgia peach belt this year. (Snapp, July 20).

MEALY PLUM APHID (Hyalopterus arundinis) - WASHINGTON - Has increased to tremendous numbers on apricots and prunes in several orchards in Prosser area. (Johansen, July 30).

PEAR PSYLLA (Psylla pyricola) - OREGON - Even though heavy oviposition as early as February in Willamette Valley, serious infestation did not develop early. Infestations have increased in recent weeks, however. (Jones).

CHERRY FRUIT FLY (Rhagoletis cingulata) - OREGON - Emergence extended over long period in Willamette Valley. Unsprayed cherry trees heavily infested. (Jones).

A LEAF ROLLER (Archips sp.) - CALIFORNIA - Severe damage to apples and pears in Siskiyou County during July. (Coop. Ins. Pest Rept.).

OLIVE SCALE (Parlatoria oleae) - CALIFORNIA - Moderate to serious damage to plum and apricot fruits in Kern County. (Coop. Ins. Pest Rept., July).

JAPANESE BEETLE (Popillia japonica) - NEW JERSEY - Only moderate population throughout State. (Starnes).

PEACH TREE BORER (Sanninoidea exitiosa) - GEORGIA - Ovipositing July 27. Spraying planned. (Snapp).

CHAIN-SPOTTED GEOMETER (Cingilia catenaria) - WISCONSIN - Reported very abundant on blueberries in Chippewa County near some cranberry bogs. (Chambers).

IMPORTED CURRANTWORM (Nematus (Pteronidea) ribesii) - CALIFORNIA - Severe damage to currants in Siskiyou County during July. (Coop. Ins. Pest Rept., July).

PECAN WEEVIL (Curculio caryae) - GEORGIA - First emergence noted July 31 in Peach and Sumter Counties. Generally one or two weevils per pecan tree. (Osburn). Emerging in Spalding County July 23. Eleven weevils jarred from 12 trees July 30. (Dupree).

Fruit Fly Survey in Florida: A reconnaissance survey of lower East Coast, made in fall of 1952, and a thorough survey of all Keys in southern Florida from Key West to Miami, conducted recently, showed no new or serious fruit flies in the area. (Ayers).

AN ANNUAL CICADA - ILLINOIS - Very heavy populations in apple orchards during early July in Carbondale area, which apparently caused heavy occurrence of cicada killer. (Chandler).

STORED GRAIN INSECTS

MICHIGAN - Infestations reported in few instances from Lansing and Mason vicinities. Mainly saw-toothed grain beetle (Oryzaephilus surinamensis) involved. (Hutson).

TRUCK CROP INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - IDAHO - Lightest since 1950 in southwestern area. (Walz). COLORADO - Larger numbers than usual on buffalobur nightshade (Solanum rostratum) and black nightshade (S. nigrum) in eastern area. Little damage in treated commercial potatoes. (Daniels). NEBRASKA - Small populations in all potato fields in western area. Control necessary in a few fields. (Wallis).

POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - Severe psyllid yellows in some fields of early potatoes in Arkansas Valley. Appearing on late potatoes in Weld County. (Wallis). NEBRASKA - Populations generally low in western area; some injury in few untreated early fields. (Wallis).

TUBER FLEA BEETLE (Epitrix tuberis) - COLORADO - Increasing very rapidly in some late potato fields in Weld County. (Wallis). NEBRASKA - Populations high enough to cause some injury in a few untreated fields in North Platte Valley. (Roselle).

APHIDS ON POTATOES - PENNSYLVANIA - Potato aphid (Macrosiphum solanifolii) increasing in most potato fields in northwestern area. (Adams). MAINE - General reduction in rate of aphid increase on untreated potatoes in Presque Isle vicinity. (Shands).

GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) - PENNSYLVANIA - General in potato fields. (Pepper).

POTATO TUBERWORM (Gnorimoschema operculella) - CALIFORNIA - Light to heavy infestations in San Bernardino County during July. (Coop. Ins. Pest Rept.).

PEPPER MAGGOT (Zonosemata electa) - CONNECTICUT - Heavy infestation in one field of eggplant at East Hartford. (Kring, August 3).

TOMATO RUSSET MITE (Vasates destructor) - NEW JERSEY - Being found for second consecutive season in Salem County. Serious in local areas. (Starnes). MARYLAND - Found in Dorchester, Harford and Carroll Counties. (Bissell).

TWO-SPOTTED SPIDER MITE (Tetranychus bimaculatus) - IDAHO - Populations increasing on beans and red clover in southwestern area. (Walz, August 1).

HORNWORMS (Protoparce spp.) - MICHIGAN - Tomato hornworm reported from Hastings, Lansing, Haslett and Adrian. (Hutson). SOUTH CAROLINA - Tobacco hornworm larvae numerous on late-planted tobacco. (Allen). Eggs and young larvae moderately abundant on summer tomatoes in Charleston area. (Cuthbert). MARYLAND - New brood beginning on tomatoes in Worcester County. (Bissell). DELAWARE - Second-generation eggs common in most plantings from Dover southward. (Late News). NEW YORK - Reported on tomatoes in Rockland and Wayne Counties. (Weekly News Lett.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - MICHIGAN - Full second brood with consequent infestations on field beans over lower peninsula. (Hutson). COLORADO - Severe injury in some untreated fields in Arkansas Valley and in Weld County. (Wallis). VIRGINIA - Light to severe in Norfolk area. (Brubaker, Greenwood, Hofmaster). DELAWARE - Damaging beans in Kent and Sussex Counties. (Late News). NEBRASKA - Injuring field beans in Scotts Bluff County. (Hill). NEW YORK - Serious in some fields in Cayuga and Wayne Counties. (Weekly News Lett.).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - ARIZONA - Severely damaged 5 acre field of beans in Glendale area; 50 percent of plants infested. (Mendenhall). Over 50 percent of plants infested in field of young hegari in Santa Cruz County. (Blackledge).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - NEW JERSEY - More abundant on carrots and lettuce than for several years. Aster yellow virus in all carrot fields. Damage to fall lettuce and processing carrots expected severe. Control measures underway. (Starnes).

CABBAGE CATERPILLARS - VIRGINIA - Cabbage looper (Trichoplusia ni) noted on plantings of young kale in Norfolk area. (Brubaker, Greenwood, Hofmaster). DELAWARE - Imported cabbageworm (Pieris rapae) severely damaged 50 acres of broccoli near Middletown. Small larvae of cabbage looper abundant in same planting. (Late News). NEW YORK - Considerable injury to late cabbage in Rockland County. (Clark).

APHIDS ON CABBAGE - NEW YORK - Serious in Rockland County, especially on late-planted cabbage. (Clark). DELAWARE - Building up near Middletown. (Late News).

SQUASH VINE BORER (Melittia cucurbitae) - WISCONSIN - More abundant than usual in southern arra. (Chambers).

MOLE CRICKETS - SOUTH CAROLINA - Light to moderate injury in some recently-seeded cabbage plantings in Charleston area. (Cuthbert).

FALSE CHINCH BUG (Nysius ericae) - ALABAMA - Complete destruction of fields of turnips in 2 northwest counties. (Ruffin, July 31).

SQUASH BUG (Anasa tristis) - MISSOURI - Heavy damage to summer squash in southeast area. (Kyd, Thomas). NEBRASKA - Destroying garden cucurbits in central and eastern areas. (Roselle).

PICKLEWORM (Diaphania nitidalis) - VIRGINIA - Light infestation on cucumbers and muskmelons - a week earlier than usual for Norfolk area. (Brubaker, Greenwood, Hofmaster).

WESTERN TUSSOCK MOTH (Hemerocampa vetusta) - CALIFORNIA - Heavy infestations on bush berries in Santa Cruz County during July. (Coop. Ins. Pest Rept.).

CYCLAMEN MITE (Tarsonemus pallidus) - CALIFORNIA - Medium to heavy damage to strawberries in Santa Cruz County during July. Light in strawberry fields in Alameda County. (Coop. Ins. Pest Rept., July).

EUROPEAN EARWIG (Forficula auricularia) - RHODE ISLAND - Abundant in Providence and Kent Counties. More numerous than usual. (Hood, D'Andrea).

WOOLLY BEAR CATERPILLARS (Arctiidae) - NEBRASKA - Large populations damaging many vegetable and ornamental crops in east and central areas. (Roselle).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - NORTH CAROLINA - Abundant in some counties, light in others. Weevils numerous in squares and blooms where they occur and causing damage to tender bolls in many fields. (Cott. News Lett.). SOUTH CAROLINA - Migrating in nearly all Coastal Plain and Sand Hill counties. (Cott. Lett.). GEORGIA - More abundant than usual in Fort Valley area. (Snapp, July 27). TENNESSEE - Average square infestation all fields examined in west Tennessee 16 percent, was 18 last week and 4 a year ago. Average infestation in infested fields 24 percent, was 26 last week and 8 a year ago. Local migration underway and young cotton becoming heavily infested in many instances. (Morris). ALABAMA - Sixty-four fields examined in 8 west central counties, all found infested. Average infestation all fields 64 percent. (Hays). MISSISSIPPI - Of 1320 fields inspected in 14 delta counties, 1083 (82 percent) infested against 65 percent last week and 30 last year. The 12 percent square infestation compares with 9 last week and 7 last year. (Dunnam et al). Average infestation Attala County 15 percent, Choctaw County 21 percent, Winston County 25 percent, Jones County 34 percent, Noxubee County 57 percent, Oktibbeha County 8 percent and Webster County 19 percent. (Hutchins et al). LOUISIANA - Squares examined in 678 fields in 21 parishes. Average infestation 13 percent compared with 10 percent last week. No punctured squares found in 5 percent of fields. (Gaines et al). Infestation increasing in older cotton and weevils moving into late younger cotton. (Smith). ARKANSAS - Infestation continuesto rise in many fields. Some marked increases in untreated fields. Insecticides holding infestations low in treated fields. (Barnes). MISSOURI - Adults continue feeding heavily in few widely scattered fields. A few fields in Butler, Ripley and Scott Counties have 20-25 percent punctured squares. (Kyd, Thomas). OKLAHOMA - Infestation increased very rapidly in eastern half of State. (Stiles). TEXAS - Examination in 64 fields in McLennan and Falls Counties showed average of 10 percent punctured squares. This compares with 8 percent last week. Only a few fields have infestations heavy enough to warrant treatment. (Parencia et al).

BOLLWORMS (Heliothis spp. et al) - NORTH CAROLINA - Increasing in many areas, though no general heavy infestations reported. (Cott. News Lett.). SOUTH CAROLINA - At Florence, 850 Heliothis armigera and 9 H. virescens moths collected in light traps compared with 213 and 17, respectively, last week. (Walker, McMillian). GEORGIA - Moderate infestation of third to fifth instars. Fifteen eggs per 100 terminals. (Morgan). MISSISSIPPI - One egg per 100 terminals in 50 fields. Average of 1 larva per 100 terminals in 121 fields. Average of 1.5 percent damage in 95 fields. (Dunnam et al). LOUISIANA - Infestations mostly light but slightly increased numbers of moths in cotton fields. (Smith). MISSOURI - Infestations continue very low. (Kyd, Thomas). OKLAHOMA - Serious numbers in Sequoyah and Muskogee Counties. Infestation in western side of State not increasing much. (Stiles). TEXAS - Egg deposition continues in attractive fields in McLennan and Falls Counties. (Parencia). NEW MEXICO - First-generation bollworms pupating throughout most of cotton area. (Dobson). ARIZONA - Increasing in a few locations; some dusting underway. (Roney). CALIFORNIA - Medium infestations in Imperial County; medium to very serious in Palo Verde and Coachella Valley, Riverside County. (Coop. Ins. Pest Rept., July).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Gin trash inspection continued in Atascosa, Bee, Bexar, Frio, Goliad, Karnes, Live Oak, San Patricio and Wilson Counties; completed in Atascosa Bexar, Frio, San Patricio and Wilson. Number of pink bollworms per bushel of trash examined for 1953 and 1952 follows: Atascosa, 1953 - 60, 1952 - no record; Bee, 1953 - 166, 1952 - 1384; Bexar, 1953 - 36, 1952 - no record; Frio, 1953 - 35, 1952 - no record; Goliad, 1953 - 1561, 1952 - 318; Karnes, 1953 - 166, 1952 - 590; Live Oak, 1953 - 47, 1952 - 3128; San Patricio, 1953 - 2930, 1952 - 3485; Wilson, 1953 - 27, 1952 - no record. (Welker).

COTTON LEAFWORM (Alabama argillacea) - ALABAMA - Found in Elmore County in central area and several southeastern counties. Some in pupal stage. (Arant). Very light infestation in one field in west central area. (Hays). MISSISSIPPI - Light infestations in a few southern Counties. Adults taken in light traps at Stoneville and State College. (Weekly Report). LOUISIANA - Cotton being "ragged" in some untreated fields. Infestation still spreading. (Smith). OKLAHOMA - First found in eastern part of State (Okmulgee County) August 7. (Brown, Stiles). TEXAS - Infestations in many counties. Some control in Coryell and Dickens Counties. (Parencia et al). NEW MEXICO - Small numbers in Eddy and Chaves Counties. (Stevenson et al).

LYGUS BUGS (Lygus spp.) - MISSOURI - One to 9 tarnished plant bugs per 100 terminals in several fields. (Kyd, Thomas). NEW MEXICO- Spotted infestations in Dona Ana County. (Dobson). ARIZONA - Eight to 20 per 100 sweeps in some cotton fields in Yuma vicinity. (Tuttle). Increasing rapidly many fields; control measures required. (Roney). CALIFORNIA - Sharp rise in some fields in west Fresno County. Severe situations have counts up to 28 per 50 sweeps with over 30 percent nymphs. (Heffernan, Roullard, Fernandez).

SPIDER MITES - CALIFORNIA - Increases in Kern, Tulare and Fresno Counties. Some medium infestations in Imperial and Riverside Counties. (Coop. Ins. Pest Rept., July). Build-ups of two-spotted spider mite (Tetranychus bimaculatus) and strawberry spider mite T. atlanticus) in Kerman, Clovis and Sanger vicinities. Two-spotted spider mite increasing slightly in Kern County. (Heffernan, Roullard, Fernandez). NEW MEXICO - Spotted infestations throughout cotton area. (Dobson). MISSOURI - Still building up on cotton, especially around fields margins. Slight bronzing along edges of few fields. (Kyd, Thomas). LOUISIANA - Infestations generally light. (Smith).

ARKANSAS - Increasing, especially in Arkansas Valley counties. Serious in some fields. (Barnes). ALABAMA - Appearing in damaging numbers in cotton fields in Sand Mountain area of northeastern Alabama. (Arant). TENNESSEE - Number of fields infested increasing in west Tennessee. New infestations nearly all in old cotton. (Morris). SOUTH CAROLINA - Building up in all counties where rainfall has been light. (Cott. Lett.). NORTH CAROLINA - Occurring many areas; some damage expected if dry weather continues. (Cott. News Lett.).

RAPID PLANT BUG (*Adelphocoris rapidus*) - MISSOURI - From 2 to 17 per 100 terminals over much of cotton growing area. (Kyd, Thomas).

WHITEFLIES - MISSOURI - Light to moderate numbers common in cotton growing area; heavier on rank growing cotton. (Kyd, Thomas).

COTTON FLEAHOPPER (*Psallus seriatus*) - MISSOURI - From 2 to 24 per 100 terminals over much of cotton growing area. (Kyd, Thomas). OKLAHOMA - Tremendous increase in Greer, Harmon and Tillman Counties. Many fields have more than 40 per 100 terminals. (Stiles). TEXAS - Very few injurious infestations in McLennan and Falls Counties. (Parencia et al).

APHIDS - SOUTH CAROLINA - Heavy infestations in many upper Coastal Plain and Piedmont counties. Weather has been unusually favorable for build-up. (Cott. Lett.). ALABAMA - Reports of build-ups in many counties over State. (Arant). LOUISIANA - Present in all fields but no damaging infestations reported. (Smith).

A LEAFHOPPER (*Empoasca* sp.) - CALIFORNIA - Damaged cotton in Imperial Valley during July. (Coop. Ins. Pest Rept.).

FALSE CHINCH BUG (*Nysius ericae*) - CALIFORNIA - Heavy damage to limited acreage of cotton in Madera County during July. (Coop. Ins. Pest Rept.).

STINK BUGS - ARIZONA - Found in a few fields. (Roney). NEW MEXICO - Reported from all southern counties. (Dobson).

GRASSHOPPERS - CALIFORNIA - *Melanoplus devastator* and *Oedaleonotus enigma* caused severe damage to area of cotton in Merced County during July. (Coop. Ins. Pest. Rept.).

FOREST INSECTS

BARK BEETLES - NEW JERSEY - Dutch elm disease has caused loss of more trees in Bergen, Essex, Passaic and Morris Counties than in recent years. (Cramer).

TENT CATERPILLARS - OREGON - Indications of continued infestations. (Every).

FALL WEBWORM (Hyphantria cunea) - PENNSYLVANIA - Webs increasing southwestern area. (Udine).

A SAWFLY (Caliroa lineata) - NEW JERSEY - Severe damage to pin oak in scattered locations in Morris County. (Cramer).

IPS BEETLES (Ips avulsus, I. calligraphus and I. grandicollis) - TEXAS - Cooperators in eastern pine belt report severe infestations in stands damaged by fires during fall of 1952 and in areas which more recently suffered from hail and windthrow. (Hay).

BAGWORM (Thyridopteryx ephemeraeformis) - DELAWARE - Defoliating cedars. Also attacking white pine, arborvitae and spruce. (Late News).

ELM LEAF BEETLE (Galerucella xanthomelaena) - CALIFORNIA - Second generation caused severe damage to unsprayed elms in Sacramento and San Joaquin Valleys. (Coop. Ins. Pest Rept., July). OREGON - Very abundant in Malheur County. Serious damage by first generation. Second generation appearing. (Every). RHODE ISLAND - Heavy feeding over most of State. (Hood, D'Andrea).

LOCUST LEAF MINER (Chalepus dorsalis) - NEW JERSEY - Severe foliage damage in Morristown area. (Cramer).

PINE COLASPIS (Colaspis pini) - LOUISIANA - Peak activity on pine reproduction in southeast St. Tammany Parish. Local epidemics occur about every 4 years. (Kowal).

PINE ROOT COLLAR WEEVIL (Hylobius radicis) - WISCONSIN - Has practically destroyed all Scotch pine in natural snow fences in northern area and becoming pest of adjoining plantations of jack and red pines. (Chambers).

INSECTS AFFECTING MAN AND ANIMALS

SCREW-WORM (*Callitroga hominivorax*) - SOUTH DAKOTA - Taken from cattle in Stanley County August 1. (Lofgren). IOWA - First of season reported; a case fatal to a dog in Polk County. (Raun).

STABLE FLY (*Stomoxys calcitrans*) - SOUTH DAKOTA - Very numerous. Control measures not adequate. (Lofgren, August 1).

HORN FLY (*Siphona irritans*) - FLORIDA - Increasing in Gadsden County area. (May). TEXAS - Infestations increased rapidly following recent rains in Kerrville area. (Smith).

CATTLE GRUBS (*Hypoderma* spp.) - TEXAS - Began appearing in cattle in mid-July in Kerrville vicinity. (Smith).

HORSE FLIES and HORN FLY more numerous than any time this year in Oklahoma. (Howell).

STORED PRODUCTS INSECTS

CRICKETS - MISSISSIPPI - Becoming abundant again at lights in town in northern area. Some stores sealing doors at night. (Hutchins). OKLAHOMA - Field cricket (*Acheta assimilis*) causing much damage to clothes. Very numerous around lights. (Howell).

BENEFICIAL INSECTS

CALIFORNIA - Large numbers of convergent lady beetle (*Hippodamia convergens*) in some Kern County cotton fields where aphids had increased. This insect reduced heavy infestations of bean aphid (*Aphis fabae*) in Monterey County and heavily attacked walnut aphid (*Chromaphis juglandicola*) in Riverside County. A thrips (*Scolothrips sexmaculatus*) effective in reducing some strawberry spider mite (*Tetranychus atlanticus*) infestations in Kern County cotton. Heavy populations of a lacewing (*Chrysopa plorabunda*) observed attacking walnut aphid in Riverside County. A braconid (*Bracon xanthonotus*) effective on an ominvorous looper (*Sabulodes caberata*) in San Diego County. (Coop. Ins. Pest Rept., July).

Recent Important Interceptions at Ports of Entry

Living larvae of *Tortrix postvittana* (Wlk.), the so called light brown apple moth, were intercepted in apples in cargo from New Zealand at New York May 27, 1953. (Fowler). This insect has been reported an important pest of apples and pears in New Zealand, Australia and Tasmania. It has also been reported on fruit and garden plants in Hawaii. It is not known to occur in the continental United States. A review of available literature indicates *Tortrix postvittana* attacks a wide variety of plants including fruits, vines, berries, vegetables, flowers, shrubs, trees, and cover crops. Its listed hosts include apple, pear, apricot, grape, strawberry, currant, citrus, chrysanthemum, litchi, eucalyptus, acacia, pine, oak, castor, rose and alfalfa. It usually occurs as a leaf roller with the young larvae folding the terminal leaves of the host plant into a shelter, feeding on the buds, young leaves or flowers and then attacking the fruit when overcrowding occurs. Feeding on the fruit is usually confined to the surface. Severe injury often results particularly when little or no spraying is done. Hibernation occurs in the larval stage in the soil. Its biology indicates it could readily adapt itself to conditions in this country if introduced. *Tortrix postvittana* was intercepted on one other occasion in apples in cargo from New Zealand at Hawaii in 1928, and a related species, *Tortrix excessana* (Wlk.), the so called needle tying moth, was taken also in apples from New Zealand at New York on May 8, 1952. (Kamper.) (C.E.I.R. Vol. 2, No. 9, p. 126).

ADDITIONAL NOTES

MINNESOTA - SQUASH VINE BORER (*Melittia cucurbitae*), rare in State, causing very severe damage to a few commercial squash fields in Ramsey County. From ten to fifty percent of plants infested. Parts of fields completely destroyed. (Granovsky). SUNFLOWER BEETLE (*Zygogramma exclamationis*) infesting some heads in two fields in east Polk County. (Hawes). Threatening infestations of GRASSHOPPERS, mostly *Melanoplus bivittatus*, *M. mexicanus* and *M. femur-rubrum*, observed in central and west central areas during week ending July 29. Heavy infestations limited to Clay and Wilkin Counties. Infestations range from non-economic to light in remainder of these areas. (Aamodt). EUROPEAN CORN BORER development retarded by continuing cool weather. From 74 to 88 percent of larvae in fourth and fifth instars. Pupation just begun; no emergence observed. (Anderson, Sandve). WHITE GRUBS (*Phyllophaga* spp.) have been increasingly troublesome on strawberries, truck crops and gardens during recent weeks. (Granovsky). YELLOW-NECKED CATERPILLAR (*Datana ministra*) observed on apples in Twin City area. Infestation very light. (Aamodt). WALNUT CATERPILLAR (Datana integerrima) - 2nd and 3rd instars on walnut trees at Waseca, August 9. (Cutkomp).

WISCONSIN - Cooler weather retarding European corn borer development. Rainy and cool nights have delayed egg laying, though moths general in southern quarter of State. First egg masses in Rock County, August 6. (Fisher). Pupation 17 percent in Pierce-St. Croix Counties area (northwest). (Apple).

TEXAS - COTTON LEAFWORM infestations general but light in western area though considerable "ragging" in some fields in Cottle, Dickens, Mitchell and Scurry Counties. Infestations less general in eastern portion of State. COTTON FLEAHOPPER infestations continued to diminish in central, north central and northeast areas with injurious infestations in a few fields in some counties. Injurious infestations continue in northwest areas, but infestations still light in plains areas. BOLL WEEVIL continues heavy in late-planted fields in south central counties where general control measures not being used. Infestations continued to increase in most counties of east area; marked increase in some northeast counties. Injurious infestations in very few fields in most central and north central counties. BOLLWORM infestations continue heavy in succulent fields in south central, east and central areas, but numbers of such fields in latter area decreasing considerably. Injurious infestations increased in north central, northeast and and northwest areas; still occur only in scattered fields in plains area. Injurious SPIDER MITE infestations continue scattered with heavier infestations in bottomlands in some south central counties and in occasional fields in northwest and plains areas. (Parencia et al).

GEORGIA - BOLL WEEVIL - One hundred thirty-six field in 33 counties inspected. All fields had been treated and all were infested. Squares very scarce in many fields. Average square infestation 58 percent against 45 percent last week. BOLLWORMS - Damaged squares found in 19 counties in south Georgia and 4 counties in north Georgia. Counts ranged from 0 to 2.7 percent injured squares with average of 0.7 percent for State. APHIDS continued to increase; infestations in all counties surveyed. A total of 95 infested fields recorded with 21 having heavy or very heavy infestations. SPIDER MITES also increasing. Forty-seven fields in 30 counties infested, mostly light. (Fussell, J. C. and C. R. Jordan).

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